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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)

Allocation of Spectrum Below)
5 GHz Transferred from)
Federal Government Use)

ET Docket No. 94-32

To: The Commission

**COMMENTS OF THE
COALITION OF PRIVATE USERS OF EMERGING MULTIMEDIA TECHNOLOGIES**

The Coalition of Private Users of Emerging Multimedia Technologies ("COPE"), hereby submits its Comments, pursuant to Section 1.415 of the Commission's Rules, to the Notice of Inquiry in ET Docket No. 94-32, FCC 94-97, released May 4, 1994. Through this Inquiry, the Commission seeks information on potential applications for 50 MHz of spectrum that will be transferred immediately from the Federal Government to the private sector, as required by the Budget Reconciliation Act of 1993. The bands identified by the Department of Commerce for immediate reallocation are the 2390-2400 MHz, 2402-2417 MHz and 4660-4685 MHz bands.

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I. Background

COPE is a coalition of associations which collectively represent the vast majority of private land mobile users. The membership of COPE includes:

American Petroleum Institute
American Trucking Associations, Inc.
Association of American Railroads
Association of Public-Safety Communication
Officials-International, Inc.
Forest Industries Telecommunications
Industrial Telecommunications Association, Inc.
International Association of Fire Chiefs, Inc.
International Municipal Signal Association
Manufacturers Radio Frequency Advisory Committee, Inc.
National Association of Business and Educational
Radio, Inc.
Utilities Telecommunications Council

On December 23, 1993, COPE filed a "Petition for Rule Making," in which it requested the Commission to initiate a proceeding to allocate 75 MHz of spectrum, in the aggregate, below 3 GHz for the development of an "Advanced Private Land Mobile Communications Service." This service would support communications systems designed to meet the unique needs of the private radio user community for advanced wireless imaging and decision processing/remote file access capabilities. COPE specifically suggested that this allocation be secured from the spectrum to be transferred from the Federal Government.

The Commission has included for consideration in this docket COPE's Petition for Rule Making.^{1/} COPE is pleased that the Commission is moving promptly to consider the merits of COPE's Petition and welcomes the opportunity to discuss how the initial transfer of Federal spectrum would at least partially meet the requirements described in COPE's Petition for Rule Making.

Although some of COPE's spectrum requirements could be met by reallocating one or more of the bands proposed in the NOI, this spectrum falls far short of meeting the total spectrum requirements identified by COPE in its Petition for Rule Making. COPE identified a total requirement of at least 75 MHz of bandwidth for advanced private communications systems.

COPE notes that in recently modifying the spectrum allocations for Personal Communications Services (PCS), the Commission increased the amount of spectrum that will remain in the "Emerging Technologies" band for other radio services.^{2/} Specifically, the Commission has retained the 2110-2150 and 2160-2200 MHz bands as part of the "Emerging Technologies" band created in ET Docket No. 92-9. Now that this spectrum has been made available for allocation to advanced communications

^{1/} Notice of Inquiry, n.21.

^{2/} Memorandum Opinion and Order in GEN Docket No. 90-314, FCC 94-144, released June 13, 1994.

systems such as those described in COPE's Petition for Rule Making, COPE urges the Commission to consider COPE's petition in the context of this remaining Emerging Technologies spectrum as well as the spectrum to be reallocated from the Federal government.

II. Discussion

The Commission has requested comments on the services to which the initial 50 MHz of Federal spectrum should be allocated and on specific rules for use of this spectrum. The following comments relate to the questions raised in paragraph 9 of the NOI:

A. The 2390-2400 MHz Band, and Perhaps the 2402-2417 MHz Band, Should Be Allocated for Advanced Private Communications Services

COPE documented many of the applications that would be employed by private industry and the public safety community if additional bandwidth were available for the licensing of advanced communications systems.^{3/} COPE pointed out that an allocation of spectrum for internal use by public safety, public service and industrial organizations would meet many important day-to-day operational needs in the areas of crime control and fire prevention, energy conservation and management, health care, pollution control, and improving industrial productivity.

^{3/} See, e.g., COPE Petition, pp.10-15.

Of the three bands recommended for immediate reallocation, COPE believes that the 2390-2400 MHz band would best meet the needs of private system licensees. The band is available in Region 2 for fixed, mobile and radiolocation use, and would thus be available for the types of operations proposed in COPE's Petition for Rule Making. Similarly, the operations proposed in COPE's petition would comply with the restrictions recommended by the Department of Commerce; viz., (1) the band should not be used for airborne or space-to-Earth links, and (2) operations should be restricted in the vicinity of the planetary research radar facility at Arecibo, Puerto Rico.

According to the "Preliminary Spectrum Reallocation Report" of the Department of Commerce, the 2402-2417 MHz band may be suitable for only certain types of modulation due to the operation of microwave ovens within the 2400-2500 MHz band. COPE notes, for example, that there is significant current usage of the 2400-2483.5 MHz band by unlicensed spread spectrum systems operating under Part 15.^{4/}

Although it appears that the 2402-2417 MHz band might present limited opportunities for use in private communications systems, COPE is concerned that the limitations would be inconsistent with communications systems intended to be used in

^{4/} 47 C.F.R. §15.247.

and around the residential environment or for critical applications where interference could not be tolerated. On the other hand, this band might provide suitable spectrum for certain private communications systems which are able to use spread spectrum modulation or which could otherwise tolerate potential interference from the operation of microwave ovens. COPE looks forward to reviewing the other comments submitted in response to this Inquiry, particularly from equipment manufacturers, to assist it in determining whether equipment could be developed for the 2402-2417 MHz band which would meet COPE's reliability and safety concerns.

At this time, COPE does not request any spectrum significantly higher than 3 GHz, and therefore expresses no opinion with respect to the 4660-4685 MHz band.

B. The Minimal Restrictions Proposed for the 2390-2400 MHz Band Would Be Consistent With An Allocation for Use in Private Communications Systems

As noted above, the restrictions proposed by the Department of Commerce for the 2390-2400 MHz band would not impose a significant limitation on the utility of this spectrum for private communications systems. COPE is not proposing that this spectrum be used for airborne or space-to-earth links, and any restrictions necessary to protect the radio receiving installation at Arecibo should have only localized effects.

C/D. COPE Has Insufficient Information To Address Impact on Amateur Operations

In questions C and D, the Commission has requested comment on whether the proposed reallocations will avoid excessive disruption to amateur use of Federal spectrum and whether new services can share with the amateur service. At this time, COPE has insufficient information to address potential impact on amateur radio.

E. The 2402-2417 MHz Band Might Provide Some Relief for the Needs of Private Radio System Operators

As noted above, COPE has reservations concerning the reallocation of the 2402-2417 MHz band due to the interference potential from the operation of microwave ovens. However, because of the widely varying needs of the private radio community, this band might provide suitable spectrum for the licensing of certain types of private communications systems. In fact, because of the number of potential interference sources already in this band, it might be an inappropriate allocation for commercial services. Whereas commercial carriers generally require expansive, ubiquitous coverage in order to market their services, private users are able to develop more localized systems and are therefore better able to "engineer in" their systems. In addition, the spread spectrum systems currently operating in this band under Part 15 are primarily used by public safety and industrial users. It is therefore possible that this spectrum could be allocated for

use by private users with technical parameters that are consistent with the existing Part 15 systems.

F. Additional Allocations Are Required for Public Safety as Well as Other Private Radio Services

COPE notes that Congress, in the Budget Reconciliation Act, reaffirmed the needs of public safety licensees and others who use spectrum to promote safety of life and property.^{5/} Further, Section 6002(a) of the Budget Reconciliation Act provides that in allocating spectrum to new uses, the Commission "may not base a finding of public interest, convenience, and necessity on the expectation of Federal revenues from the use of a system of competitive bidding under this subsection." Since competitive bidding is to be used only in the case of commercial radio services, it is apparent that Congress intended nothing in the Budget Reconciliation Act to affect the Commission's responsibility to provide adequate spectrum for public safety and other private radio systems. Therefore, reallocating Federal spectrum to the private radio services would be entirely consistent with the Budget Reconciliation Act.

^{5/} Under Section 6002(a) of the Budget Reconciliation Act, the Commission is required to complete a study of present and future spectrum needs of State and local government public safety agencies through the year 2010. In addition, under Section 6001(a), the Commission must develop a reallocation plan which, among other things, contains provisions to ensure safety of life and property in accordance with Section 1 of the Communications Act.

G. COPE Takes No Position on the Suitability of The Proposed Spectrum for Use in Biomedical Telemetry Devices

The Preliminary Spectrum Reallocation Report noted that the House/Senate Conferees on the Budget Reconciliation Act had recommended that NTIA and the FCC should "carefully consider the needs of hospitals and other health care providers for interference-free radio spectrum in their respective allocation decisions made pursuant to this Act."^{6/} According to NTIA, the biomedical telemetry industry subsequently clarified that this equipment must operate between 75 MHz and 800 MHz.^{7/} Other than noting that the initial 50 MHz is located significantly higher in the spectrum than the upper limit specified by the biomedical equipment industry, COPE takes no position on the suitability of the currently proposed spectrum for these specific operations.

H. There is No Need To Delay Allocation of this Spectrum

In the NOI, the Commission notes that certain Federal spectrum bands might become available within the next 2-3 years that could be paired with the currently proposed allocations. For example, the 2300-2310 MHz band, which could be paired with the 2390-2400 MHz band, is scheduled to be reallocated in 2 years, and the 4635-4660 MHz band, which could be paired with

^{6/} H.R.Rep. No. 213, 103d Cong. 1st Sess, pt.4 at 8 (1993).

^{7/} NTIA "Preliminary Spectrum Reallocation Report," p. 5-13.

the 4660-4685 MHz band, might become available in 3 years. The Commission asks for comment on whether it should delay licensing on some of the initially proposed spectrum so that larger blocks could be made available in a few years.

Given the amount of time necessary to complete spectrum allocation proceedings and to develop technical and service rules, COPE urges the Commission not to intentionally delay allocation of this spectrum simply to "marry" this spectrum with future spectrum allocations. As part of the spectrum planning process, the Commission should explore with NTIA the possibility of pairing these allocations. If such pairing seems both feasible and advisable, the Commission should take steps to lay the groundwork for such an eventual allocation. Using the Commission's "Emerging Technologies" proceeding, ET Docket No. 92-9, as a model, the Commission could make a prospective allocation of these bands for particular radio services subject to any conditions established by the Secretary of Commerce for reallocation of these bands to the private sector. This procedure would permit licensing on the paired spectrum at the earliest possible date.

III. CONCLUSION

In its Petition for Rule Making, COPE identified a need for at least 75 MHz of bandwidth, in the aggregate, for development of advanced private communications systems. Some

of this requirement could be met by Federal spectrum to be made immediately available. However, to the extent additional spectrum remains available in the Emerging Technologies band at 2110-2150 MHz and 2160-2200 MHz, COPE requests the Commission to proceed to rulemaking as requested in COPE's Petition.


WHEREFORE, THE PREMISES CONSIDERED, the Coalition of Private Users of Emerging Multimedia Technologies respectfully requests the Commission to take action in this docket consistent with the views expressed herein.

Respectfully submitted,

**COALITION OF PRIVATE USERS OF
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